

# **MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY**

**Michiana Laminated Products, Inc.  
050E - 7130N  
Howe, Indiana 46746**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 087-14348-00049	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 26, 2001  Expiration Date: November 26, 2006

## TABLE OF CONTENTS

### SECTION A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]
- A.2 Emission Units and Pollution Control Equipment Summary

### SECTION B GENERAL CONSTRUCTION CONDITIONS

- B.1 Permit No Defense [IC 13]
- B.2 Definitions
- B.3 Effective Date of the Permit [IC 13-15-5-3]
- B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]
- B.5 Modification to Permit [326 IAC 2]
- B.6 Minor Source Operating Permit [326 IAC 2-6.1]
- B.7 Permit Term [326 IAC 2-6.1-7]

### SECTION C SOURCE OPERATION CONDITIONS

- C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]
- C.2 Preventive Maintenance Plan [326 IAC 1-6-3]
- C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]
- C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]
- C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
- C.6 Permit Revocation [326 IAC 2-1-9]
- C.7 Opacity [326 IAC 5-1]
- C.8 Fugitive Dust Emissions [326 IAC 6-4]
- C.9 Performance Testing [326 IAC 3-6]
- C.10 Monitoring Methods [326 IAC 3]

#### Record Keeping and Reporting Requirements

- C.11 Malfunctions Report [326 IAC 1-6-2]
- C.12 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-3]
- C.13 General Record Keeping Requirements [326 IAC 2-6.1-2]
- C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]
- C.15 Annual Notification [326 IAC 2-6.1-5(a)(5)]

### SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

#### Emission Limitations and Standards

- D.1.1 Particulate Matter (PM) [326 IAC 6-3]

#### Compliance Determination Requirements

- D.1.2 Testing Requirements [326 IAC 2-1.1-11]
- D.1.3 Particulate Matter (PM)

### SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

#### Emission Limitation and Standards

- D.2.1 Volatile Organic Compounds (VOCs)
- D.2.2 Volatile Organic Compounds (VOCs)
- D.2.3 Incinerator Requirements [326 IAC 4-2]

Annual Notification  
Malfunction Report

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

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The Permittee owns and operates stationary laminating facility.

Authorized Individual: Michael Sutter  
Source Address: 050E - 7130N, Howe, Indiana 46746  
Mailing Address: 050E - 7130N, Howe, Indiana 46746  
Phone Number: (219) 562-2871  
SIC Code: 2541  
County Location: LaGrange  
County Status: Attainment for all criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, Section 112 of the Clean Air Act  
Minor source, under PSD rules

### A.2 Emissions units and Pollution Control Equipment Summary

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This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) Woodworking workshop with a dust collection system that vents internally. The woodworking workshop has a maximum capacity of 290 pounds of wood per hour.
- (b) Furniture laminating workshop that has a maximum capacity of 290 pounds of wood per hour.
- (c) Gluing booth which vents to the atmosphere.
- (d) Talbott's CM5 "Warm Air" wood-fired combustion unit consisting of a 2 million Btu hot air combustion zone and a 2 million Btu gas-fired afterburner for control.

## **SECTION B                      GENERAL CONSTRUCTION CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1      Permit No Defense [IC 13]**

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2      Definitions**

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.3      Effective Date of the Permit [IC13-15-5-3]**

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

### **B.4      Revocation of Permits [326 IAC 2-1.1-9(5)]**

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.5      Modification to Permit [326 IAC 2]**

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### **B.6      Minor Source Operating Permit [326 IAC 2-6.1]**

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a)      The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
  - (1)      If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (2)      If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.
- (b)      If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c)      Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

**B.7 Permit Term [326 IAC 2-6.1-7]**

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This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications or amendments of this permit do not affect the expiration

## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
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### C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of criteria pollutants is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.
- (c) Any change or modification which may increase potential to emit to 10 tons per year of any single hazardous air pollutant, 25 tons per year of any combination of hazardous air pollutants, or 100 tons per year of any other regulated pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

### C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

### C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

**C.7 Opacity [326 IAC 5-1]**

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Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.8 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**Testing Requirements**

**C.9 Performance Testing [326 IAC 3-6]**

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.



## Compliance Monitoring Requirements

### C.10 Monitoring Methods [326 IAC 3]

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

## Record Keeping and Reporting Requirements

### C.11 Malfunctions Report [326 IAC 1-6-2]

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality(OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

### C.12 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

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- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.13 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.15 Annual Notification [326 IAC 2-6.1-5(a)(5)]

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- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015
- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

- (a) Woodworking workshop with a dust collection system that vents internally. The woodworking workshop has a maximum capacity of 290 pounds of wood per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards

#### D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the woodworking facilities shall not exceed 1.1 pounds per hour when operating at a process weight rate of 290 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

### Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]

#### D.1.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.1.3 Particulate Matter (PM)

The dust collector for PM control shall be in operation at all times when the woodworking facilities are in operation.

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

- (b) Furniture laminating workshop that has a maximum capacity of 290 pounds of wood per hour.
- (c) Gluing booth which vents to the atmosphere.
- (d) Talbott's CM5 "Warm Air" wood-fired combustion unit consisting of a 2 million Btu hot air combustion zone and a 2 million Btu gas-fired afterburner.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitation and Standards

#### D.2.1 Volatile Organic Compounds (VOCs)

Any change or modification which may increase the potential emissions to 25 tons per year or more of volatile organic compounds must be approved by the Office of Air Quality before any such change may occur.

#### D.2.2 Hazardous Air Pollutants (HAPs)

Any change or modification which may increase the potential emissions of a single HAP to greater than 10 tons per year or a combination of HAPs to greater than 25 tons per year must be approved by the Office of Air Quality before such change may occur.

#### D.2.3 Incinerator Requirements [326 IAC 4-2]

Pursuant to 326 IAC 4-2, the after burner on wood-fired combustion unit shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) Be equipped with a primary burner unless burning wood products;
- (c) Comply with 326 IAC 5-1 and 326 IAC 2;
- (d) Be maintained properly as specified by the manufacturer and approved by the commissioner;
- (e) Be operated according to the manufacturer's recommendations and only burn waste approved by the commissioner;
- (f) Comply with other state and/or local rules or ordinances regarding installation and operation of incinerators;
- (g) Be operated so that emissions of hazardous material including but not limited to viable pathogenic bacteria, dangerous chemicals or gases, or noxious odors are prevented;
- (h) Not emit particulate matter in excess of five-tenths (0.5) pounds of particulate matter per one thousand (1,000) pounds of dry exhaust gas at standard condition corrected to fifty percent (50%) excess air; and
- (i) Not create a nuisance or fire hazard.

If any of the above result, the burning shall be terminated immediately.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under  
326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	Michiana Laminated Products, Inc.
<b>Address:</b>	050E - 7130N
<b>City:</b>	Howe, Indiana 46746
<b>Phone #:</b>	(219) 562-2871
<b>MSOP #:</b>	087-14348-00049

I hereby certify that Michiana Laminated Products, Inc. is ☒ still in operation.  
☐ no longer in operation.

I hereby certify that Michiana Laminated Products, Inc is ☒ in compliance with the requirements of  
MSOP 087-14348-00049.  
☐ not in compliance with the requirements of  
MSOP 087-14348-00049.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative  
description of how the source did or will achieve compliance and the date compliance was, or will be  
achieved.

<b>Noncompliance:</b>

## MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. (    ) \_\_\_\_\_

LOCATION: (CITY AND COUNTY) \_\_\_\_\_

PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_

CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_        AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_        AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO<sub>2</sub>, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions  
applicable to Rule 326 IAC 1-6 and to qualify for  
the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Minor Source Operating  
Permit (MSOP)**

**Source Background and Description**

Source Name: Michiana Laminated Products, Inc.  
Source Location: 050E - 7130N, Howe, Indiana 46746  
County: LaGrange  
SIC Code: 2541  
Operation Permit No.: 087-14348-00049  
Permit Reviewer: ERG/AR

The Office of Air Quality (OAQ) has reviewed an application from Michiana Laminated Products, Inc. relating to the operation of a laminating facility.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Woodworking workshop with a dust collection system that vents internally. The woodworking workshop has a maximum capacity of 290 pounds of wood per hour.
- (b) Furniture laminating workshop that has a maximum capacity of 290 pounds of wood per hour.
- (c) Gluing booth which vents to the atmosphere.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**New Emission Units and Pollution Control Equipment Receiving Prior Approval**

- (a) Talbott's CM5 "Warm Air" wood-fired combustion unit consisting of a 2 million Btu hot air combustion zone and a 2 million Btu gas-fired afterburner for control.

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) OP44-05-93-0065, issued on November 20, 1989

All conditions from previous approvals were incorporated into this permit.

### Enforcement Issue

There are no enforcement actions pending.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
A	Glue Booth	12	0.83	Unknown	Unknown
B	Combustion Unit	40	1	Natural Draft	320-340EF

### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 10, 2001, with additional information received on June 25, June 27, June 28, and July 3, 2001.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 9).

### Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.” The table below includes permitted emission units as well as new emission units receiving prior approval.

Pollutant	Potential To Emit (tons/year)
PM	64.1
PM-10	64.1
SO <sub>2</sub>	0.1
VOC	0.7
CO	7.1
NO <sub>x</sub>	1.3
Individual HAP (Hexane)	0.2
Total HAP	0.3

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM10 is greater than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2.

### County Attainment Status

The source is located in LaGrange County.

Pollutant	Status
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. LaGrange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) LaGrange County has been classified as attainment or unclassifiable for criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Current Emissions (ton/yr)	Emissions from New Equipment (ton/yr)
PM	55.4*	8.7
PM10	55.4*	8.7
SO <sub>2</sub>	—	0.1
VOC	0.5	0.2
CO	—	7.1
NO <sub>x</sub>	—	1.3

\* The dust collector must be used to comply with 326 IAC 6-3-2.

- (a) This existing source (including new equipment) is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) If the source currently had an Minor Source Operating Permit the addition of the new equipment could be handled as a minor permit revision under 326 IAC 2-6.1-6(g)(4)

because the emissions of PM and PM<sub>10</sub> are between 5 and 25 tons per year from the new equipment.

### **Part 70 Permit Determination**

#### **326 IAC 2-7 (Part 70 Permit Program)**

This existing source is not subject to the Part 70 Permit requirements because the total potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability - Entire Source**

#### **326 IAC 2-6 (Emission Reporting)**

This source is located in LaGrange County and the potential to emit VOC, NO<sub>x</sub>, PM<sub>10</sub>, SO<sub>2</sub>, and CO is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

#### **326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)**

This source has a potential to emit less than twenty-five (25) tons per year of sulfur dioxide. Therefore, 326 IAC 7-1.1-2 does not apply.

### **State Rule Applicability - Individual Facilities**

#### **326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

The operation of this laminating facility will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

#### **326 IAC 8-1-6 (New Facilities - General Reduction Requirement)**

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year, therefore this source is not subject to the provisions of 326 IAC 8-1-6.

**326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)**

The source is not doing any surface coating, only laminating the pre-painted laminate. Therefore, 326 IAC 8-2-12 does not apply.

**326 IAC 6-3-2 (Process Operations)**

The particulate matter (PM) from the woodworking shop shall not exceed 1.1 pounds per hour when weight of 290 pounds per hour. The pound per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

The dust collector shall be in operation at all times the woodworking workshop is in operation, in order to comply with this limit.

**326 IAC 9-1-2(3) (Carbon Monoxide Emission Limits)**

The source does not burn refuse, they burn wood for use as a fuel. Therefore, 326 IAC 9-1-2(3) does not apply.

**326 IAC 4-2-2 (Incinerators)**

- (a) The Talbott's CM5 "Warm Air" wood-fired combustion unit is not considered an incinerator because it does not burn waste substances, it burns wood for use as a fuel.
- (b) The afterburner on the wood-fired combustion unit is considered an incinerator and is subject to this rule.

**326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**

The Talbott's CM5 "Warm Air" wood-fired combustion unit is not a boiler therefore, 326 IAC 6-2 does not apply.

**Compliance Monitoring**

Compliance monitoring is not being required for the woodworking operations dust collection system because the allowable emissions from this operation is less than 10 pounds per hour.

**Conclusion**

The construction and operation of this laminating facility shall be subject to the conditions of the attached proposed new construction and minor source operating permit 087-14348-00049.

## Appendix A: Emission Calculations

### Total Emission Summary

Page 1 of 9 TSD App A

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Pit ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** July 3, 2001

### Potential Emissions

	PM (tpy)	PM-10 (tpy)	SO2 (tpy)	NOx (tpy)	VOC (tpy)	CO (tpy)
<b>Combustion unit</b>	8.6	8.6	0.1	0.4	0.2	6.4
<b>Afterburner</b>	0.1	0.1	0	0.9	0	0.7
<b>Glue</b>	0	0	0	0	0.3	0
<b>Cleaner</b>	0	0	0	0	0.2	0
<b>Woodworking</b>	55.4	55.4	0	0	0	0
<b>TOTAL</b>	<b>64.1</b>	<b>64.1</b>	<b>0.1</b>	<b>1.3</b>	<b>0.7</b>	<b>7.1</b>

	PM (lb/hr)	PM-10 (lb/hr)	SO2 (lb/hr)	NOx (lb/hr)	VOC (lb/hr)	CO (lb/hr)
<b>Combustion unit</b>	1.96	1.96	0.02	0.09	0.05	1.46
<b>Afterburner</b>	0.02	0.02	0	0.21	0	0.16
<b>Glue</b>	0	0	0	0	0.07	0
<b>Cleaner</b>	0	0	0	0	0.05	0
<b>Woodworking</b>	12.65	12.65	0	0	0.00	0
<b>TOTAL</b>	<b>14.63</b>	<b>14.63</b>	<b>0.02</b>	<b>0.30</b>	<b>0.16</b>	<b>1.62</b>

**Appendix A: Emission Calculations**  
**Total Emission Summary**

Page 2 of 9 TSD App A

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Plt ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** July 3, 2001

**Hazardous Air Pollutants**  
**Tons/Year**

	<b>Benzene</b>	<b>Dichlorobenzene</b>	<b>Formaldehyde</b>	<b>Hexane</b>	<b>Toluene</b>	<b>Lead</b>	
<b>Glue</b>	0	0	0	0.16	0.02	0	
<b>Cleaner</b>	0	0	0	0	0.08	0	
<b>Afterburner</b>	1.84E-05	1.05E-05	6.57E-04	0.02	2.98E-05	5.00E-04	
<b>TOTAL</b>	<b>1.84E-05</b>	<b>1.05E-05</b>	<b>6.57E-04</b>	<b>0.18</b>	<b>0.10</b>	<b>5.00E-04</b>	0.28

	<b>Cadmium</b>	<b>Chromium</b>	<b>Manganese</b>	<b>Nickel</b>	<b>Xylene</b>	<b>Methyl Ethyl Ketone</b>	
<b>Glue</b>	0	0	0	0	0	3.96E-04	
<b>Cleaner</b>	0	0	0	0	6.07E-03	0	
<b>Afterburner</b>	1.10E-03	1.40E-03	3.80E-04	2.10E-03	0	0	
<b>TOTAL</b>	<b>1.10E-03</b>	<b>1.40E-03</b>	<b>3.80E-04</b>	<b>2.10E-03</b>	<b>6.07E-03</b>	<b>3.96E-04</b>	0.01

<b>Total Combined HAP =</b>	<b>0.30 tons/year</b>
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**Appendix A: Emission Calculations**  
**Total Emission Summary**

Page 3 of 9 TSD App A

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Plt ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** July 3, 2001

**Hazardous Air Pollutants**  
**Pounds/Hour**

	<b>Benzene</b>	<b>Dichlorobenzene</b>	<b>Formaldehyde</b>	<b>Hexane</b>	<b>Toluene</b>	<b>Lead</b>	
<b>Glue</b>	0	0	0	0.04	4.34E-03	0	
<b>Cleaner</b>	0	0	0	0	1.94E-02	0	
<b>Afterburner</b>	4.20E-06	2.40E-06	1.50E-04	3.60E-03	6.80E-06	1.14E-04	
<b>TOTAL</b>	<b>4.20E-06</b>	<b>2.40E-06</b>	<b>1.50E-04</b>	<b>0.04</b>	<b>0.02</b>	<b>1.14E-04</b>	0.07

	<b>Cadmium</b>	<b>Chromium</b>	<b>Manganese</b>	<b>Nickel</b>	<b>Xylene</b>	<b>Methyl Ethyl Ketone</b>	
<b>Glue</b>	0	0	0	0	0	9.03E-05	
<b>Cleaner</b>	0	0	0	0	1.39E-03	0	
<b>Afterburner</b>	2.51E-04	3.20E-04	8.68E-05	4.79E-04	0	0	
<b>TOTAL</b>	<b>2.51E-04</b>	<b>3.20E-04</b>	<b>8.68E-05</b>	<b>4.79E-04</b>	<b>1.39E-03</b>	<b>9.03E-05</b>	2.61E-03

<b>Total Combined HAP =</b>	<b>0.07 pounds/hour</b>
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**Appendix A: Emissions Calculations**  
**External Combustion Boiler - Commercial/Institutional**  
**Talbott's CM5 "Warm Air" Wood-fired Combustion Unit**  
**Fuel Cell / Dutch Oven Boiler**

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348  
**Plt ID:** 087-00049  
**Reviewer:** ERG/AR  
**Date:** June 28, 2001

Capacity  
MMBtu/hr

Capacity  
tons/hr

2.00

0.22

Emission Factor in lb/ton	Pollutant					
	PM	PM10*	SO2	NOx	VOC	CO
	8.8	8.8	0.075	0.38	0.18	6.6
Potential Emission in tons/yr	8.6	8.6	0.1	0.4	0.2	6.4

\* AP-42 does not contain a PM10 emission factor, therefore the PM10 emission factor is assumed to be equal to the PM emission factor.

### Methodology

The factors are based on wet, as-fired wood waste with an average moisture content of 50% and an average heating value of 4,500 Btu/lb.

Heating value of wood = 4500 Btu/lb

Capacity (tons/hr) = Heat Input Capacity (MMBtu/hr) x Heating Value of wood (1lb/4500 Btu) x (10<sup>6</sup> Btu/MMBtu) x 1 ton/2000 lbs

Emission Factors are from AP-42 Chapter 1.6 (Supplement E, 2/99), SCC #1-01-009-03, 1-02-009-03, 1-02-009-06, 1-03-009-03

Emissions (tons/yr) = Capacity (tons/hr) x Emission Factor (lb/ton) x 8760hrs/yr x 1ton/2000lbs

Additional emission factors for HAPs and other types of wood waste combustion are available in AP-42, Chapter 1.6.

**Appendix A: Emissions Calculations**  
**Natural Gas-Fired Afterburner**  
**MM BTU/HR <100**

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Pit ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** June 26, 2001

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

2.0

17.5

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.1	0.1	0.0	0.9	0.0	0.7

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Emissions Calculations  
Natural Gas-Fired Afterburner  
MM BTU/HR <100**

Page 6 of 9 TSD App A

**HAPs Emissions**

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Pit ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** June 26, 2001

**HAPs - Organics**

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.840E-05	1.051E-05	6.570E-04	1.577E-02	2.978E-05

**HAPs - Metals**

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.380E-06	9.636E-06	1.226E-05	3.329E-06	1.840E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations  
Glue**

Page 7 of 9 TSD App A

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Plt ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** July 3, 2001

Maximum Amount of Glue Used gallons/month 10
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Glue Contains : 5.4 pounds of VOC/gallon  
 Total VOC Emission = 648 pounds/year

<b>Total VOC Emission =</b>	<b>0.32 tons/year</b>
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**Methodology**

(10 gallons maximum/month)\*(5.4 pounds/gallon)\*(12 months/year)\*(1 ton/2000 pounds)

Density of Glue = 6.59

Hazardous Air Pollutants		
Toluene	0.019	tons/year
Hexane	0.16	tons/year
Methyl Ethyl Ketone	0.00040	tons/year

**Methodology**

(10 gallons maximum/month)\*(6.59 pounds/gallon)\*(12 months/year)\*(weight fraction of HAP in glue)\*(1 ton/2000 pounds)

**Appendix A: Emission Calculations**  
**Cleaning Product**

Page 8 of 9 TSD App A

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Plt ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** July 3, 2001

Maximum Amount of Cleaning Product Used gallons/month 5
--

Density of Cleaning Product = 6.744 pounds/gallon  
Total VOC Emission = 404.64 pounds/year

<b>Total VOC Emission =</b>	<b>0.20 tons/year</b>
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**Methodology**

$(5 \text{ gallons maximum/month}) \times (6.744 \text{ pounds/gallon}) \times (12 \text{ months/year}) \times (1 \text{ ton}/2000 \text{ pounds})$

Hazardous Air Pollutants		
Toluene	0.08	tons/year
Mixed Xylenes	0.01	tons/year

**Methodology**

$(5 \text{ gallons maximum/month}) \times (6.744 \text{ pounds/gallon}) \times (12 \text{ months/year}) \times (\text{weight fraction of HAP in cleaning product}) \times (1 \text{ ton}/2000 \text{ pounds})$

## Appendix A: Emissions Calculations

Page 9 of 9 TSD App A

### Woodworking Calculations

**Company Name:** Michiana Laminated Products, Inc.  
**Address City IN Zip:** 050E-7130N, Howe, Indiana 46746  
**CP:** 087-14348-00049  
**Pit ID:** 00049  
**Reviewer:** ERG/AR  
**Date:** July 19, 2001

The dust collector collects 12 pounds per hour of particulate matter from the woodworking operations.

**Uncontrolled Emissions = ((12 pounds/hour)\*(8760 hours/year)\*(1 ton/2000 pounds))/0.95 = 55.4 tons/year**

Using engineering judgement, a baghouse efficiency of 95% was assumed for efficiency of the baghouse.

**Controlled Emissions = (55.4 tons/year)\*(1-0.95) = 2.77 tons/year or 0.63 pounds/hour**

Controlled emissions of 0.63 pounds/hour is less than the allowable under 326 IAC 6-3-2 of : 1.1 pounds/hour